

PATENT COOPERATION TREATY

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WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/IB2004/050054

International filing date (day/month/year)
27.01.2004

Priority date (day/month/year)
29.01.2003

International Patent Classification (IPC) or both national classification and IPC
H04L5/20, H04L25/02

Applicant
KONINKLIJKE PHILIPS ELECTRONICS N.V.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2004/050054

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2004/050054

Box No. II Priority

1. ☒ The following document has not been furnished:

- ☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).
- ☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	3-5, 10-12, 15-16
	No: Claims	1, 2, 6-9, 13, 14, 17
Inventive step (IS)	Yes: Claims	
	No: Claims	1-17
Industrial applicability (IA)	Yes: Claims	1-17
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

The following document is referred to in this communication:

D1 : EP 1 207 649 A (TEXAS INSTRUMENTS LTD ; TEXAS INSTRUMENTS INC (US)) 22 May 2002 (2002-05-22)

V.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

The document D1 discloses (the references in parentheses applying to this document):

A data communication system, comprising:

- at least three signal conductors (paragraph 11);**
- a first and a second power supply terminal (paragraph 42, current sources 28 and 29), for supplying currents of mutually opposite direction to the signal conductors respectively (paragraph 13 and column 8, lines 19-22);**
- a driver circuit coupled between the power supply terminals and the signal conductors (paragraph 42 and fig. 6, numerals 30-38), the driver circuit being arranged to establish a combination of currents through respective ones of the signal conductors (paragraph 13), the driver circuit selecting successive combinations, depending on information to be transmitted, from a selectable set of combinations (paragraph 11), at least three different of current levels to any signal conductor being used in the set (paragraph 13: current in first sense, current in second, i.e. opposite, sense and zero current) , including a current level of current to the signal conductors from the first power supply and a current level of current from the signal conductors to the second power supply (column 8, lines 19-22: the currents in the two senses are from the current sources 28 and 29), a sum of the currents through the signal conductors substantially having a same value for each combination in the set (paragraph 13: the sum of currents is zero) and at least one of the conductors not merely functioning in a differential pair relation with another one of the conductors (paragraph 13: the conductor with a zero current is not functioning in a differential pair relation with another one of the conductors).**

The subject-matter of claim 1 is therefore not new.

V.2 The same reasoning applies, *mutatis mutandis*, to the subject-matter of the corresponding independent claim 13, which therefore is also considered not new.

V.3 Dependent claims 2-12 and 14-17 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, for the following reasons:

- The subject-matter of claims 2, 6-9, 14 and 17 is disclosed in D1, see paragraphs 11, 13, 36, 42-44 and 46 (N.B.: the driver disclosed in D1 comprises an internal switchable current path, i.e. fig. 6, numerals 30-38, which is activated depending on the combination being established and the sum of the currents from the power supplies remains the same upon switching between different combinations.) Therefore the subject-matter of these claims is not new.

- The subject-matter of claims 3-5, 10-12 and 15-16 defines slight constructional changes in the systems and methods of the claims to which they refer, which come within the scope of the customary practice followed by persons skilled in the art, especially as the advantages thus achieved can readily be foreseen. Consequently, the subject-matter of these claims lacks an inventive step.